

Applicant: Moungi G. Bawendi et al.

Serial No.: 09/832,959 : April 12, 2001 Filed

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## REMARKS

Claims 46-47, and claims 78-95 have been cancelled without prejudice. Claims 69 and 70 have been amended to more clearly describe Applicants' invention. Support for the amendments can be found throughout the specification, for example, at page 5, lines 23-30 and page 9, lines 22-25. New claims 96-126 have been added. Support for the new claims can be found throughout the specification, for example, at page 12, lines 11-18, page 13, lines 12-15, and original claims 29 and 32. New claims 96-126 read on the elected invention. Claims 69-77 and 96-126 are pending with claims 69 and 109 being independent.

## Rejections under 35 U.S.C. 102(e)

Claims 69-77 have been rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No.5,990,479 to Weiss et al. (the '479 patent), and U.S. Patent No. 6,423,551 to Weiss et al. (the '551 patent).

Applicants have discovered a method of detecting biological moieties. The method includes providing a plurality of compositions capable of characteristic spectral emissions allowing a sample containing or suspected of containing one or more biological, allowing a sample containing or suspected of containing one or more biological moieties to interact with the compositions, and monitoring the spectral emission of each interaction between each composition. The composition includes a compound and a semiconductor nanocrystal associated with the compound. For each of the members of the plurality, the nanocrystal of the member of the plurality has an emission spectrum distinct from the other members of the plurality and a quantum yield of greater than 10% in water. See amended independent claim 69.

Neither the '479 patent nor the '551 patent describe a method in which a nanocrystal has a quantum yield greater than 10% in water. Thus, the '479 patent and the '551 patent do not anticipate independent claim 69, and claims that depend therefrom. Applicants respectfully request reconsideration and withdrawal of this rejection.

## New claims

Neither the '479 patent nor the '551 patent describe a method in which the compound of the member of the plurality has a corresponding biological moiety distinct from other biological moieties in the sample and is associated with the nanocrystal by a ligand having at least one linking group for attachment to the nanocrystal spaced apart from a hydrophilic group by an

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alkyl or alkenyl group. Accordingly, new independent claim 109, and claims that depend therefrom, are patentable over the cited references.

## CONCLUSION

Applicants respectfully ask that all claims be allowed.